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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/857,029	05/31/2001	Johann Pfeiffer	032287-017	7708
27045	7590	09/14/2004	EXAMINER	
ERICSSON INC. 6300 LEGACY DRIVE M/S EVR C11 PLANO, TX 75024			KADING, JOSHUA A	
			ART UNIT	PAPER NUMBER
			2661	

DATE MAILED: 09/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 09/857,029	Applicant(s) PFEIFFER, JOHANN	
	Examiner Joshua Kading	Art Unit 2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☒ Claim(s) 1-7 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 5-31-01 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Objections

Claim 4 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is
5 required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 4 is stating that the classification of the connection is made after the number of packets is determined. However, this is exactly what claim 1 is claiming, see lines 5-9. The term "therefrom" is used to denote the sequence of events, i.e. the number of packets is determined, and
10 then from that the connection type is classified.

Claims 2-7 are objected to because of the following informalities:

Claim 2:

Line 1, "packet length" should be --packet lengths--.

15 Lines 2-3, "the data packets the network termination unit can, in a development of the invention, determine the kind of data connection, in that on" should be --the data packets, where the network termination unit determines a kind of data connection, in that, on--.

Line 4, "more than a predeterminable number of cells greater than two".

20 This does not seem to make much sense and is difficult to read. Therefore, it is suggested that applicant change line 4 to read --more than two cells-- or --greater than two cells--.

Line 5, "and in that the ATM" should be changed to --and the ATM--.

Claim 3 states, "the beginning of transmission a CBR connection is always assumed as the initial value." This should be changed to --the beginning of transmission, a CBR connection is always assumed as an initial connection type.--

5 Claim 4 states, "the presence of a UBR or CBR connection is determined only after the evaluation of the results of a predeterminable number of data packets." This sentence is awkward and does not make much sense. It is suggested it be changed to -
-the UBR or CBR connection is determined only after the results of the number of data packets are determined.--

10 Claim 5 states, "on establishing...the EPD". It should be changed to --
establishing...an EPD--.

Claims 6 and 7, all instances of "relatively" should be deleted. This is not a definite term and is not needed in the claims.

Claim 7:

15 Line 2, "into cells and assembled" should be changed to --into cells are assembled--.

Line 3, "several cells can be sent" should be changed to --several cells and can be sent--.

20 Lines 6-7, "the determination of the number of data cells" should be
changed to --a determination of a number of data cells--.

Line 9, "data packets either into the buffer" should be replaced with --data packets into the buffer--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

5 The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being
indefinite for failing to particularly point out and distinctly claim the subject matter which
10 applicant regards as the invention.

Regarding claim 1, the phrase "e.g..." renders the claim indefinite because it is
unclear whether the limitation(s) following the phrase are part of the claimed invention.
See MPEP § 2173.05(d).

Regarding claim 7, line 6 states "wherein it comprises". What is "it" referring to?
15 Is "it" the termination unit or something else?

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all
obviousness rejections set forth in this Office action:

20 (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

25 Claims 1, 3, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable
over Moritomo (U.S. Patent 5,581,545) in view of Aida (U.S. Patent 6,212,163 B1).

Regarding claim 1, Moritomo discloses "process for configuring a network termination unit for asynchronous packet ATM (Asynchronous Transfer Mode) transmission of data, the data divided into cells and assembled into packets being transmitted either at a constant data rate (CBR), e.g., speech and video data, or at a non-constant data rate (UBR), the data cells of packets being received and sent over the network termination unit, which represents an interface between a transmission line and a data end device, wherein

the number of the data cells in each sent or received data packet is determined in the network termination unit (10) (col. 9, lines 49-55 where the buffer is part of the termination unit of figure 9), and

it is determined therefrom whether an ATM connection with...data rate is present (col. 9, lines 49-55 whereby counting the packets in the class buffers, a determination is made as to whether or not a given class of connection is present, e.g. if a buffer has zero packets then there is no connection for that class, if there are packets then there is a connection for that class)..."

However, Moritomo lacks what Aida discloses, the connection determined is either "constant (CBR) or non-constant (UBR) data rate (figure 1 where there are CBR buffers and "best effort" or UBR buffers)" and "...the data packets of a CBR connection being processed with a higher priority than the data packets of the UBR connection (figure 1 where it is clear that the CBR has the highest priority of all connection types)."

It would have been obvious to one with ordinary skill in the art at the time of invention to include the different connection types for the purpose of giving different

priority weights to different types of traffic. As is known in the art, the motivation for classifying different types of traffic this way is to allow more time sensitive data, such as voice, to take priority in transmission over low priority data, such as email. This way the quality or time sensitive nature of the higher priority data is not compromised.

5

Regarding claim 3, Moritomo and Aida disclose the unit of claim 1. However, neither Moritomo nor Aida explicitly state that “the beginning of transmission a CBR connection is always assumed as the initial value.” Although the limitation of claim 3 is never stated, it would have been obvious to one with ordinary skill in the art to assume
10 that CBR traffic would be the initial state of a connection because CBR is the highest priority connection and would thus take precedence over all other connection types. And it is in a networks interest to give top priority to a CBR connection and thus making a default type of connection. The motivation for having the CBR connection the initial value of a connection is to allow high priority data access to the connection first.

15

Regarding claim 6, Moritomo and Aida disclose the unit of claim 1. However, Moritomo lacks what Aida further discloses, “the data packets detected by the network termination unit (10) as data packets of a UBR connection are fed to a buffer with relatively high storage capacity (figure 1, where the lowest priority buffer is the highest
20 capacity buffer) and the data packets detected by the network termination unit (10) as data packets of a CBR connection are fed to a buffer (12) with relatively low storage capacity (figure 1, where the highest priority buffer has the lowest capacity).” It would

have been obvious to one with ordinary skill in the art to include the capacities of the buffers for the same reasons and motivation as in claim 1.

Regarding claim 7, Moritomo discloses “network termination unit for the
5 asynchronous ATM transmission of data in packets (Asynchronous Transfer Mode), by means of which the data divided into cells and assembled into packets with several cells can be sent and received with... data rate, a buffer (col. 9, lines 49-55 where the buffer is part of the termination unit of figure 9)...in particular for the application of the process according to claim 1, where it comprises a device for the determination of the number of
10 data cells contained in each data packet which undertakes a classification, corresponding to the determined number of data cells, of the ATM connection present (col. 9, lines 49-55 whereby counting the packets in the class buffers, a determination is made as to whether or not a given class of connection is present, e.g. if a buffer has zero packets then there is no connection for that class, if there are packets then there is
15 a connection for that class)...”

However, Moritomo lacks what Aida discloses, the data rates are “constant (CBR) and also non-constant (UBR) (figure 1 where there are CBR buffers and “best effort” or UBR buffers)”, the UBR data is deflected to “the relatively large capacity buffer (figure 1, where the lowest priority buffer is the highest capacity buffer)” and the CBR
20 data is deflected to “the buffer with relatively small capacity (figure 1, where the highest priority buffer has the lowest capacity).”

It would have been obvious to one with ordinary skill in the art at the time of invention to include the different connection types and buffers for the purpose of giving different priority weights to different types of traffic. As is known in the art, the motivation for classifying different types of traffic this way is to allow more time sensitive data, such as voice, to take priority in transmission over low priority data, such as email. This way the quality or time sensitive nature of the higher priority data is not compromised.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Moritomo and Aida as applied to claim 1 above, and further in view of Nattkemper et al. (U.S. Patent 6,754,206 B1).

Regarding claim 5, Moritomo and Aida disclose the unit of claim 1. However, Moritomo and Aida lack what Nattkemper discloses, "establishing a UBR connection, the network termination unit can optionally be set in the EPD (Early Packet Discard) mode (col. 14, lines 66-col. 15, lines 1-5 where as with Moritomo and Aida the low priority data is considered UBR type data)." It would have been obvious to one with ordinary skill in the art at the time of invention to have the EPD for the UBR connection for the purpose of controlling congestion starting with the lowest priority data. The motivation for controlling congestion is so that the network does not become overwhelmed and communication stops all together.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua Kading whose telephone number is (571) 272-3070. The examiner can normally be reached on M-F: 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye can be reached on (571) 272-3078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Joshua Kading
Examiner
Art Unit 2661

September 3, 2004



KENNETH VANDERPUYE
PRIMARY EXAMINER